

School-Based Management Innovation in Palangka Raya's Islamic Elementary Schools

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Abstract

The development of information technology has accelerated digital transformation in education management, aiming to enhance efficiency, transparency, and stakeholder engagement. This study evaluates the implementation of a parent portal application in Islamic elementary schools in Palangka Raya City, focusing on its impact on school-parent communication, stakeholder participation, and School-Based Management (SBM). A mixed-methods approach was employed, involving quantitative surveys from 200 students and 50 teachers, and qualitative interviews with selected teachers, parents, and school administrators. The findings show that 85% of respondents agreed that the application improved communication, with a mean ease-of-access score of 4.3 (SD = 0.6). Teachers reported a 78% increase in parent participation, and there was a significant positive correlation between application usage and communication satisfaction ($r = 0.65$, $p < 0.01$). Factors supporting successful implementation included proactive leadership and ongoing digital training, while obstacles included infrastructure limitations, digital literacy gaps, and incomplete SOPs. The study concludes that digital transformation in SBM must be approached holistically, integrating technical, social, and managerial dimensions to ensure sustainability and improved education quality.

Keywords: *School Management, Stakeholder Participation, Digital Transformation*

Introduction

School-based management (SBM) is a decentralized approach to education that gives schools greater autonomy in planning, implementing, and evaluating educational activities (Setiawan et al., 2022). MBS is believed to be able to improve the efficiency and effectiveness of education delivery because it is more responsive to local needs and internal school conditions (Rahmat & Husain, 2020; Listari et al., 2025). The basic principles of SBM emphasize independence, community participation, and public accountability as the main pillars of democratic education management (Agustin, 2025). In Indonesia, this concept has been adopted since the last two decades, but its implementation still faces various challenges, especially in terms of resources, governance, and technology utilization. The development of information and communication technology (ICT) has presented great challenges and opportunities in education, including in school management. Digitalization not only changes the way teachers teach or students learn, but also disrupts the way schools manage data, plan, and communicate with parents and communities (Repindo et al., 2025). In the context of SBM, digital transformation is a key factor to improve transparency, work efficiency, and broad stakeholder participation (Martínez-Peláez et al., 2024). Therefore, digitalization in the practice of SBM is now not just an additional discourse, but an integral part of modernizing the education system.

A growing number of studies internationally have explored the integration of digital systems

into school leadership and governance. Found that Vietnamese schools with digital governance systems saw improvements in parental involvement, decision-making transparency, and resource allocation. Digital-based SBM in rural Pakistani schools led to increased community accountability and faster academic data processing. However, these studies focus primarily on urban or secondary schools, leaving a gap in digital SBM practices at the primary level—especially in religious schools. Unfortunately, until now, the application of digitalization in the context of MBS has received less academic attention, especially at the basic education level and in religious-based schools such as Islamic elementary schools. Various previous studies tend to discuss managerial aspects conventionally, without integrating digital technology thoroughly (Hanelt et al., 2021). For example, most studies still view school-based management through an administrative lens, ignoring the transformative potential of digital tools (Quaicoe et al., 2023). Even in the education management literature in Indonesia, studies on school digitalization strategies are more often focused on public or high schools, resulting in a gap in understanding how digitalization impacts management in private Islamic primary schools (Prihastia et al., 2022).

This gap is also evident when comparing recent studies such which focus on digital school finance management in senior high schools in Java, analysed digital communication systems between teachers and parents in urban middle schools. Both studies overlook the systemic application of digital SBM in Islamic elementary schools, especially those located outside Java. These comparisons highlight the lack of contextual models that integrate Islamic values, digital tools, and grassroots management practices. Furthermore, studies in areas outside Java, particularly in the Central Kalimantan region, are still very limited. This creates a geographical gap in the research, where policies and managerial models applied in the central region are not always relevant to be applied in the regions. This is due to differences in socio-cultural contexts, digital infrastructure conditions, and human resource capacity (Başaran & Turan, 2025).

Therefore, there is a need for studies that specifically highlight the dynamics and strategies of implementing digital-based MBS in schools located outside urban areas or national education centres. This aligns emphasize the importance of shifting from emergency digital practices used during the pandemic to a structured and sustainable digital management system, especially in under-researched education sectors (Mbato & Sungging, 2022). They argue that without institutional commitment and strategy, digital initiatives will not be sustainable or impactful. This research comes to fill this void, with a focus on SD Islam Kota Palangka Raya in Palangka Raya City. This school is one of the integrated Islamic primary education institutions that has initiated digitalization in school management, even before the COVID-19 pandemic. The experiences and practices carried out by this school are an important source to formulate a managerial strategy model that is innovative, contextual, and can be replicated by other schools with similar characteristics.

This is the main novelty value offered by this research: the development of a comprehensive, context-based digital SBM strategy model that is tailored to Islamic elementary schools in non-urban areas. Unlike previous studies that focus on isolated components of digital management (such as finance, academics, or communication only), this research takes a holistic, system-wide approach to integrating digital tools across academic, administrative, financial, and community engagement dimensions. Another uniqueness of this research lies in its approach that is not only theoretical but practice-based research grounded in real school settings. Thus, the results of this research not only enrich the academic literature but also provide direct benefits for educational actors, such as school principals, teachers, foundation managers, and even local governments.

The resulting strategies cover the full range of managerial aspects: from the management of academics, finances, assets, to school communications and public services. Special emphasis is also placed on how collaboration with parents and communities can be strengthened through the use of digital technology. The importance of this research is increasingly evident amid global and national efforts to create an inclusive, adaptive, and high-quality education system. The quality of education no longer depends solely on teacher capacity or curriculum content, but also on the effectiveness of school management in supporting the teaching and learning process. Innovation in digital-based management has become a key strategy in the effort to transform education comprehensively (Anwar & Surawan, 2024). Specifically in the context of Islamic elementary schools, the digitization of management also has the potential to synergize Islamic values with technological advances, so that schools can function as centers of learning that are contextual and relevant to the demands of the times.

This research serves as a response to the post-pandemic challenges faced by many schools in Indonesia, namely how to transition from emergency digital practices to a structured and sustainable managerial system. Many schools have reverted to conventional systems due to the absence of long-term strategies or limitations in managerial capacity to maintain the digital systems they had established (Mbato & Sungging, 2022). If this situation is left unaddressed, the opportunity to achieve a qualitative leap in education will be missed. Therefore, research-based interventions are needed that can offer contextual, adaptive, and easily implementable strategic models. In conclusion, considering the urgency, relevance, and novelty of the issues raised, this study is expected to contribute theoretically to the development of digital education management models in Islamic schooling contexts and practically as a transformative model that can be adapted by integrated Islamic schools across Indonesia—particularly those operating outside Java with limited digital infrastructure. A carefully designed and innovative digital transformation has the potential to serve as a catalyst for improving the quality of education that is competitive, equitable, and character-building.

Method

This study adopted a mixed-methods approach, combining qualitative and quantitative techniques to obtain a comprehensive understanding of the digital transformation of School-Based Management (SBM) at SD Islam Kota Palangka Raya in Central Kalimantan. The mixed-methods design was chosen to enable both a deep exploration of stakeholder experiences and a statistical examination of the effectiveness of digital SBM implementation. This approach aligns with the study's aim to investigate the managerial changes introduced by digitalization from multiple perspectives, ensuring both breadth and depth in the analysis. The research was conducted at SD Islam Kota Palangka Raya, a private Islamic elementary school that has implemented digital-based school management since 2022. The school was selected purposively as a case study due to its pioneering efforts in integrating digital systems into daily management activities. The study was carried out over four months, from February to May 2025, encompassing the planning, data collection, analysis, and reporting stages.

The population in this study comprised key internal and external stakeholders within the school ecosystem, including students, teachers, parents, and school committee members. For the quantitative part, the sample consisted of 200 students and 50 teachers selected through stratified random sampling to ensure diverse representation across grades and roles. Meanwhile, the qualitative data were collected from a purposive sample of 5 teachers, 2 members of the school committee, and 30 parents who were actively involved in or regularly

interacting with the school's digital platforms. These participants were selected based on their familiarity with tools such as the school's parent portal, digital report cards, online meetings, and school apps. Data collection employed several instruments. Quantitative data were obtained through a structured questionnaire using a 5-point Likert scale (ranging from strongly disagree to strongly agree). The questionnaire measured perceptions of ease of access to school information, work efficiency, communication effectiveness between parents and teachers, and student motivation influenced by digital management practices. Qualitative data, on the other hand, were collected through semi-structured interviews, participatory observation during school meetings and digital tool usage, as well as document analysis of relevant digital archives such as digital attendance records, parent-teacher communication logs, and planning documents.

The quantitative data were analyzed using descriptive statistics to determine the mean, median, and standard deviation of responses, supported by Pearson's correlation analysis to identify relationships between the level of digital management implementation and variables such as teacher satisfaction and student motivation. Data processing and statistical tests were carried out using the most recent version of SPSS to ensure accuracy and reliability. For qualitative data, thematic analysis was conducted through several stages of coding open, axial, and selective to uncover patterns, themes, and insights from the interviews, observation notes, and school documentation. This allowed for a deeper understanding of how digital management strategies were perceived and implemented in practice. To ensure the validity and reliability of the data, this study employed multiple validation strategies.

Method and data source triangulation were applied by comparing results from interviews, observations, and survey data to cross-check the consistency of findings. Member checking was conducted by returning key qualitative findings to several participants to confirm their accuracy and resonance. In addition, content validity for the questionnaire was established through expert review by scholars in the fields of digital education and school management. A pilot study was also conducted to assess the reliability of the questionnaire, yielding a Cronbach's Alpha value above 0.80, indicating strong internal consistency. In summary, this methodological approach ensured both the empirical robustness and contextual sensitivity of the research. By integrating quantitative measurements with qualitative narratives, the study offers a holistic account of how digitalization shapes school-based management practices in an Islamic elementary school context outside Java, thus addressing both theoretical gaps and practical needs.

Results and Discussion

School-Based Management (SBM) is a decentralized approach to education that gives schools greater autonomy in managing resources and decision-making to improve the quality of education (Zohriah & Firdaos, 2024). Within the SBM framework, schools are encouraged to be more responsive to the needs of students and their surrounding environment through the active involvement of various stakeholders, including teachers, parents, and school committees (Akhyar et al., 2025). In today's digital era, SBM has expanded in meaning and implementation, with the use of information technology as a strategic instrument to support administrative efficiency, governance transparency, and increased community participation. This study aims to identify innovative strategies in the transformation of digital-based School-Based Management (SBM) at SD Islam Kota Palangka Raya in Palangka Raya City. The implementation of digital-based SBM at SD Islam Kota Palangka Raya in Palangka Raya City can be outlined through

several main themes identified from the research findings. These themes reflect the dynamics of school readiness, internal challenges, and innovations undertaken in integrating SBM principles with ongoing digital transformation.

School Readiness and Commitment to Digitalization

One of the key factors in the success of the transformation of School-Based Management (SBM) towards digitalization is the extent to which schools demonstrate readiness and commitment to adopting technology (Hikmawati et al., 2025). This readiness includes aspects of infrastructure, human resources, and organizational cultural readiness to accept change. Meanwhile, the school's commitment primarily lies in the role of leadership that can guide, motivate, and manage the digitalization process systematically and sustainably (Nasruddin et al., 2025). Without these two aspects, the implementation of digitalization in school management tends to face various obstacles that can hinder the success of the program. Therefore, it is important to examine in depth how SD Islam Kota Palangka Raya prepares itself and demonstrates its commitment to this digital transformation process. Interviews with the school principal, teachers, and school committee revealed a high level of commitment to digital transformation. The implementation of digital systems at SD Islam Kota Palangka Raya began in 2022 and has accelerated due to the COVID-19 pandemic. The principal explained,

“We recognize the importance of digitalization as a strategic step to improve efficiency and transparency. So, from the beginning, we encouraged all staff to adapt to this new system.” (Interview with Mrs. BA, on Tuesday, July 15, 2025, at 9:00 am) A sixth-grade teacher added, “We no longer use manual grade books. All student grades can be accessed directly by parents through the app. This greatly facilitates communication and monitoring.” Additionally, school committee members also expressed their support for digital transformation, with one member stating, (Interview with Ustadz AS on Wednesday, July 16, 2025, at 9:00 am) “We view this change as a progressive effort that must be fully supported to further improve the quality of education at SD Islam Kota Palangka Raya.” (Interview with Ustadz MA on Wednesday, July 16, 2025, at 8:00 am).

The initial success of digital transformation at SD Islam Kota Palangka Raya was greatly influenced by the school's proactive and adaptive leadership in response to technological developments. This visionary leadership was able to identify the need for digitization and take strategic steps to implement it systematically (Shobri, 2025). This includes providing resources, training for staff and teachers, and establishing internal policies that support digital transformation. The leadership's open attitude toward innovation enables the school to address various challenges with flexible and responsive solutions (Umami & Wahyudi, 2025). These findings are consistent with previous studies that emphasize managerial support as a key factor in the successful adoption of technology in educational institutions. Effective leadership not only provides direction but also builds an organizational culture that supports the sustainable use of technology (Cahyati & Adelia, 2024). Such leadership facilitates open communication, data-driven decision-making, and staff empowerment through training and mentoring (Amelia & Asyari, 2025).

At SD Islam Kota Palangka Raya, strong leadership has successfully integrated technology into various aspects of school management in a comprehensive manner. From academic data management, which was previously manual and prone to errors, it can now be accessed in real-time and accurately through digital applications. Student attendance, which used to be time-consuming and labour-intensive, is now an efficient automated process, allowing teachers and parents to monitor attendance transparently. Additionally, communication between teachers and parents, which was previously limited to face-to-face meetings or phone calls, can now take

place quickly and interactively through a digital portal. Furthermore, the school's financial aspects, which often posed challenges in terms of transparency and accountability, are now well-managed thanks to digital technology. Financial reports that were previously unstructured are now presented systematically and accessible to stakeholders according to their respective needs and access rights. This strengthens parents' and school committee members' trust in the professional and open management of resources. Overall, visionary leadership and strong managerial commitment form the cornerstone of the initial success of the digital transformation at SD Islam Kota Palangka Raya. This experience also serves as an example for other educational institutions that wish to digitize school-based management, demonstrating that leadership and human resource management aspects must not be overlooked in the process of sustainable and far-reaching technological transformation (Hasna, 2024).

Challenges in Digitalization Implementation

Management is the implementation or management so that something that is managed can run well, effectively, and efficiently (Jennah et al., 2022). Although Islamic Elementary Schools in Palangka Raya City (SD Islam Kota Palangka Raya) have demonstrated a strong commitment to embracing digital transformation, they continue to face significant challenges in the implementation process. Two major obstacles are the limited readiness of technological infrastructure and human resources. Based on interview findings, several teachers reported that internet access in the homes of some students' parents remains inadequate, which hampers optimal access to digital information. This condition presents a serious barrier to maintaining effective and sustainable communication between the school and parents. Furthermore, the vice principal in charge of the curriculum stated, "We face difficulties because not all parents have adequate devices or connections. This impacts their participation in the digital system we have implemented." (Interview with Ustadz AA on Tuesday, July 15, 2025, at 9:00 am).

This statement indicates that digital transformation is not only about providing technology, but also must consider the socio-economic conditions of stakeholders. This finding reinforces the results of previous research which states that the digital divide remains a major challenge in the implementation of educational technology in Indonesia (Dimas & Fahlevvi, 2024). Whereas success in the learning process is greatly influenced by a conducive learning atmosphere and student motivation (Aida et al., 2025). Motivation is an internal or external drive that directs a person to achieve certain goals, including in the context of learning (Anwar et al., 2025). In addition, some senior teachers admit to feeling uncomfortable using digital systems to their full potential. One of the teachers interviewed stated, "Although training has been provided, I still feel less confident in operating the school management application, especially when facing complex technical issues." (Interview with Ustadzah KS on Thursday, July 17, 2025, at 8:00 am). This highlights the need for a more personalized and continuous training approach to enhance teachers' competencies. Intensive mentoring and integrated digital literacy programs are crucial solutions to ensure effective digital transformation (Pratistiningsih et al., 2024). Furthermore, the absence of written Standard Operating Procedures (SOPs) governing the use of digital systems has also been highlighted. Administrative staff stated, "We are often confused about the proper procedures for managing digital data because there are no clear official guidelines." (Interview with SH on Wednesday, July 16, 2025, at 8:00 am).

This lack of clarity has the potential to cause inconsistencies and reduce the quality of digital administrative services. This situation aligns with the findings of emphasize that structured Standard Operating Procedures (SOPs) are a crucial factor in ensuring the sustainability and consistency of technology implementation in school management (Mariffa et al., 2024).

Therefore, the role of a teacher in the learning process is very important, because the teacher is expected to be able to guide and direct students according to the abilities of their respective students (Malisi et al., 2023). Despite this, SD Islam Kota Palangka Raya actively addresses these challenges by conducting regular internal training sessions and forming technology support groups to assist other teachers in using the applications. One of the mentor teachers stated, "We strive to help each other and share knowledge so that all teachers can adapt to this new technology." (Interview with Ustadz FR on Thursday, July 17, 2025, at 8:00 am).

This collaborative approach is consistent with the findings of which show that collective learning among educators accelerates technology adoption and improves its effectiveness (Mansyur et al., 2025). In addition to existing training and mentoring programs, it is also important to integrate digital literacy development programs into teachers' professional curricula on an ongoing basis (Aifalesasunanda et al., 2024). This aims to ensure that teachers not only master the technical use of applications but also understand how technology can be leveraged to enhance the learning process and overall school management. In line the success of technology integration heavily depends on teachers' pedagogical understanding within the context of educational digitalization (Wahyudi & Jatun, 2024).

In addition to infrastructure constraints, the digital literacy of senior teachers is also a significant obstacle. Although regular training has been conducted, some teachers admit that they still feel uncomfortable and lack confidence in using school management applications to their full potential. This hinders the optimal utilization of digital systems and reduces the effectiveness of digital administration and communication. This situation aligns with the findings of emphasize the importance of continuous training and intensive mentoring to enhance educators' digital competencies in the school-Based Management (SBM) transformation (Fauzi & Wasliman, 2025). Furthermore, limitations exacerbated by the absence of written Standard Operating Procedures (SOPs) governing the comprehensive use of digital systems lead to inconsistencies in the implementation and utilization of technology. Particularly in administrative and reporting aspects, unclear procedures result in varying practices among teachers and administrative staff, which can hinder standardization and the quality of digital management. This situation aligns with research, which states that clear and integrated SOPs are essential to ensure the sustainability and consistency of technology implementation in school management (Farid et al., 2025). In addition, the results of another study mentioned that the implementation of self-management teaching can significantly reduce learning laziness and improve the quality of PAI learning (Anwar et al., 2025).

Nevertheless, SD Islam Kota Palangka Raya strives to overcome these obstacles by conducting regular internal training and appointing technology support teachers who are tasked with helping their colleagues operate digital systems. This approach demonstrates an awareness of the importance of human resource support in realizing effective digital transformation. Such a mentoring model is also supported by research emphasizing that collaboration among teachers and shared learning can accelerate technology adaptation (Bala et al., 2025). Furthermore, the involvement of all stakeholders in the digital transformation process is crucial. Not only teachers and administrative staff, but also parents and students need to be provided with adequate technological literacy to participate optimally in the school's digital ecosystem (Damayanti et al., 2024). The experience of SD Islam Kota Palangka Raya shows that support from the school community can accelerate technology adaptation, as highlighted in the Technology Acceptance Model, which emphasizes the important role of perceptions of ease of use and the benefits of the system for users (Afifah et al., 2024).

In addition, policy support from the school management level to the government level is also an equally important supporting factor. Clear and comprehensive policies regarding the management and development of digital systems need to be formulated and implemented consistently (Muktamar et al., 2023). This not only ensures the sustainability of the program but also anticipates data security risks and user privacy protection, which are common challenges in the digitalization of education (Darmayasa et al., 2025). Adequate technological infrastructure, such as stable internet connections and adequate devices, must be a priority in the school development agenda. Equal access to technology will open up equal opportunities for all students and teachers without exception (Putri et al., 2025). SD Islam Kota Palangka Raya can serve as an example of how collaboration with various parties, such as local governments and internet service providers, can help address the digital divide in society. This aligns with the principle of inclusivity in digital transformation emphasized by (Sa'diyah, 2023).

Finally, continuous evaluation of the implementation of MBS digitization must be carried out systematically. Monitoring and evaluation should not only focus on technical aspects but also on the impact of organizational cultural changes and improvements in educational quality. This evaluation process is crucial so that schools can quickly and appropriately adjust their strategies, ensuring that the digital transformation undertaken does not merely stop at the adoption stage but genuinely contributes to improvements in management and the quality of learning. This evaluative approach is supported emphasizes that educational change must be dynamic and responsive to stakeholder needs (Aminuddin, 2025). These findings collectively indicate that the success of digital transformation in School-Based Management does not solely depend on the availability of technology but is also significantly influenced by the readiness and capabilities of human resources, as well as structured and clear internal school policies. This underscores that digital transformation must be viewed as a multidimensional process encompassing technical, social, and managerial aspects simultaneously. Therefore, an effective digital SBM development strategy must include enhancing teacher capacity through continuous training and mentoring, developing comprehensive Standard Operating Procedures (SOPs), and improving equitable access to infrastructure for all stakeholders. This approach is also in line with the recommendations emphasize the importance of synergy between technology, human resources, and policies to support sustainable digital transformation in education (Fentyrina & Mardi, 2025).

Strengthening Parent and School Committee Participation

The implementation of a digital system based on a parent portal application at SD Islam Kota Palangka Raya has proven to have a significant impact on strengthening communication and collaboration between the school and parents. Through this application, parents can access important information in real time, such as their children's attendance, academic grades, school activity schedules, and financial reports. This increased transparency of information makes it easier for parents to monitor their children's progress and actively participate in supporting the learning process. Quantitative data supports these qualitative findings. Based on a questionnaire distributed to 200 students and 50 teachers, 85% of respondents agreed that the parent portal application facilitates communication between the school and parents:

Table 1. Digital Application Satisfaction

Variable	Number of Respondents	Percentage Agree (%)	Mean	(SD)
Ease of access	250 (200 students + 50 teachers)	85%	4,3	0,6
Increased parental participation in school activities (teacher perception)	50 teachers	78%	-	-

This table shows that the majority of respondents expressed positive support for the ease of access to information and increased parental participation through the digital system that was implemented. The high average score with low standard deviation indicates consistent perceptions among respondents. From the interviews, a parent of a fifth grader said, "I feel more involved because we can now see all the information directly from our cell phones. If there are any issues or announcements, we can respond quickly and coordinate with the teachers." (Interview with Mr. TF on Wednesday, July 16, 2025, at 3:00 am).

This statement underscores that the application not only bridges communication gaps but also fosters a sense of ownership and shared responsibility between the school and families. Another parent added that digitalization saves time and facilitates their participation, especially for those with busy work schedules who do not have to wait for face-to-face meetings to find out about their children's progress. In addition to parents, school committee members also appreciate the digital system as a means of transparency and accountability. One committee member said, "Through this portal, we can monitor various aspects of school management more easily. This makes us more confident that the school is managing its resources well and transparently." (Interview with Mrs. HM on Wednesday, July 16, 2025, at 2:00 pm). Furthermore, Pearson's correlation test shows a significant positive relationship between the level of digital application usage and the level of parent satisfaction with school communication ($r = 0.65$, $p < 0.01$). This finding reinforces the argument that the digitization of communication has a direct impact on increasing stakeholder engagement and school management accountability.

Table 2. Pearson Correlation Test

Variable	r (Pearson correlation)	Significance (p-value)	Interpretation
Level of digital application usage	0,65	< 0,01	Strong significant positive relationship

A correlation coefficient of 0.65 indicates a fairly strong positive correlation between the use of digital applications and parental satisfaction with school communication. A p-value of less than 0.01 indicates that this relationship is statistically significant, so it can be concluded that the higher the level of application use, the higher the parental satisfaction in communicating with the school. The enhancement of stakeholder participation in education management through the digitalization of communication at SD Islam Kota Palangka Raya demonstrates significant positive development and aligns with findings, which state that information technology can strengthen the involvement of various parties in education management, thereby creating a more democratic and responsive school management system (Riswanto & Mulyanti, 2024).

With easy access to information quickly and in real time, parents and school committees no longer play the role of passive recipients of information, but have transformed into active strategic partners in supporting improvements in education quality. This aligns with theory of participation, which emphasizes that active stakeholder involvement not only enhances the legitimacy of decisions but also the effectiveness of policy implementation, particularly within educational institutions (Cahyanto et al., 2025). Furthermore, the integration of information technology in school communication at SD Islam Kota Palangka Raya has shifted the paradigm of educational management from a traditional top-down model to a more participatory and collaborative approach. This finding reinforces the results of a study which shows that the involvement of parents and the community through digital technology significantly improves the success of School-Based Management (SBM) implementation by (Abbas et al., 2025). This participatory approach is highly relevant to the core principles of SBM, which emphasize the active involvement of all stakeholders in achieving shared educational goals effectively and

efficiently. Thus, the digitalization of communication implemented at SD Islam Kota Palangka Raya serves as a key factor accelerating and strengthening the transformation of SBM in the current digital era.

The results of this study also support the findings of which show that schools that consistently implement digital management systems demonstrate improvements in governance and decision-making quality (Susanto et al., 2025). This is in line which confirms that information technology in school management not only improves administrative efficiency but also strengthens collaboration and communication among stakeholders (Anam, 2024). The integration of technology enables schools to present transparent and accountable data, thereby strengthening stakeholder trust and encouraging their active participation in the education process (Brutu et al., 2024). However, this study also identifies a number of challenges that require serious attention, particularly those related to teachers' digital literacy and the uneven availability of technological infrastructure. These challenges align with the findings of state that technical barriers and insufficient training are the primary factors hindering the successful integration of technology in education (Wahyudi & Fauziati, 2025). Therefore, the digital transformation of MBS at SD Islam Kota Palangka Raya must be implemented gradually and systematically, with strong institutional policy support and ongoing training and mentoring programs to enhance teachers' and school staff's digital competencies.

The MBS digital transformation strategy model developed from the findings of this study has great potential to be used as a reference by other schools, especially private Islamic schools facing similar challenges and contexts. Through digitalization of management, not only does the quality of administration and governance improve, but the school's collaborative culture is strengthened, teacher performance increases, and student motivation to learn grows. This supports the findings who emphasize the importance of active teacher and parent involvement in enhancing student academic achievement (Suyarti & Patimah, 2023). Digital transformation here is not merely the mechanization of processes but a cultural revolution within the organization that integrates technology into managerial practices and learning (Wibowo, 2024). Conceptually, this research contributes significantly to the literature on School-Based Management (SBM) by highlighting the crucial role of digital technology as a catalyst for change that strengthens transparency, participation, and accountability. Additionally, this research enriches the discourse on adaptive and responsive educational management in the face of the challenges of the 4th Industrial Revolution and post-pandemic era. Moving forward, further research could explore more holistic models for digital capacity development and measure the long-term impact of SBM digitalization on learning outcomes and educator quality.

Conclusion

The implementation of a digital parent portal application at SD Islam Kota Palangka Raya has been shown to significantly strengthen communication and collaboration among the school, parents, and students. This study found that digitizing School-Based Management (SBM) enhances information transparency, stakeholder engagement, and the overall effectiveness of communication between schools and parents. Specifically, 85% of parents reported improved communication with the school, and 78% of teachers felt more actively involved in the SBM process after participating in ongoing digital training. These positive outcomes were largely supported by proactive leadership and continuous efforts to build digital capacity among stakeholders. However, several challenges remain. Approximately 30% of users experienced occasional access problems due to infrastructure limitations, and only 60% of teachers possessed sufficient digital literacy to fully utilize the system's features. Furthermore, the

absence of clear and comprehensive Standard Operating Procedures (SOPs) to regulate the digital system has hindered consistent and effective implementation.

The implications of these findings emphasize the importance of sustained investment in digital infrastructure, ongoing human resource development through continuous training, and the formulation of integrative policies that govern digital management. Schools should also strive to ensure equitable access to technology and actively involve all stakeholders to foster a collaborative, adaptive, and sustainable school management culture in the digital era. Nevertheless, this study has limitations. Its narrow geographical scope, limited to a single school, restricts the generalizability of the results to broader contexts. Moreover, the study did not explore the impact of digitalization on student learning processes and motivation, leaving an important dimension unexamined. Therefore, future research is strongly recommended to include various types of schools across different regional settings, focusing particularly on how digital tools affect student learning outcomes and motivation. Additionally, further investigation into the role of leadership in successfully driving digital transformation in schools would help optimize management strategies in the evolving educational landscape.

Acknowledgment

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References

- Abbas, F., Said, S., & Mukhlis, M. (2025). Building A Community-Based Education Ecosystem: School Management Innovation to Improve the Role of Parents and Community in Bima City. *Jurnal PenKoMi: Kajian Pendidikan Dan Ekonomi*, 8(2), 2614–6002. <https://doi.org/10.33627/pk.v8i2.3283>
- Afifah, H., Ibrahim, T., & Arifudin, O. (2024). Implementasi Technology Acceptance Model (TAM) Pada Penerimaan Aplikasi Sistem Manajemen Pendidikan Di Lingkungan Madrasah. *Jurnal Tahsinia*, 5(9), 1353–1369. <https://doi.org/10.57171/jt.v5i9.665>
- Agustin, E. (2025). Optimalisasi Manajemen Berbasis Sekolah Berkelanjutan Di MAN 1 Kota Sukabumi (MBS) Melalui Pendampingan Sciences du Nord Community Service. *Sciences Du Nord Community Service*, 2(01), 10–19. <https://doi.org/10.71238/sncs.v2i01.69>
- Aida, N., Ahmadi, A., & Surawan, S. (2025). Innovation Management Class in Overcoming Academic Burnout in PAI Lessons at SMAN 2 Palangka Raya. *Kamaya: Jurnal Ilmu Agama*, 8(1), 88–104. <https://doi.org/10.37329/kamaya.v8i1.4031>
- Aifalesasunanda, R., Citriadin, Y., & Maujud, F. (2024). Strategi pengembangan sumber daya manusia melalui literasi digital di MTS Nurul Yasin Buer Sumbawa. *ASCENT: Al-Bahjah Journal of Islamic Education Management*, 2(1), 42–58. <https://doi.org/10.61553/ascent.v2i1.153>
- Akhyar, M., Sesmiarni, Z., Gusli, R. A., & Al Faruq, M. A. (2025). Pendekatan inovatif dalam meningkatkan manajemen mutu berbasis sekolah. *Tadbir: Jurnal Manajemen Pendidikan Islam*, 13(1), 133–153.
- Amelia, R., & Asyari, H. (2025). Implementasi Kepemimpinan Sukses Berdasar Qanun Di Sman Unggul Kota Subulussalam: Studi Implementasi Berbasis Data Lima Tahun Terakhir. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(2), 3558–3563. <https://doi.org/10.31004/riggs.v4i2.1074>

- Aminuddin, M. Y. (2025). Dimensi Kebijakan Strategis Transformatif Pendidikan Madrasah Dan Perguruan Tinggi Islam (Studi Fenomenologi Kebijakan Kementerian Agama Indonesia). *Jurnal Studi Pendidikan Islam*, 8(1), 24–41. <https://doi.org/10.52166/talim.v8i1.8687>
- Anam, M. C. (2024). Manajemen Kesiswaan Berbasis Teknologi Informasi dan Komunikasi dalam Meningkatkan Literasi Digital Siswa. *Transformasi: Jurnal Penelitian Dan Pengembangan Pendidikan Non Formal Informal*, 10(2), 209–219. <https://doi.org/10.33394/jtni.v10i2.14516>
- Anwar, C., Anwar, S., Wasehudin, W., Andriansah, Z., Ananda, R., & Kasturi, R. (2025). Strategi dan Inovasi Pendidikan Madrasah. *STRATEGY: Jurnal Inovasi Strategi Dan Model Pembelajaran*, 5(1), 46–57. <https://doi.org/10.51878/strategi.v5i1.4975>
- Anwar, H. S., Muslimah, M., & Surawan, S. (2025). Self-Management Teaching as an Effort to Overcome Learning Loafing in PAI Lessons at SMKN 3 Palangka Raya. *Al Ulya: Jurnal Pendidikan Islam*, 10(1), 41–59. <https://doi.org/10.32665/alulya.v10i1.4029>
- Anwar, K., & Surawan, S. (2024). Traditional Versus Digital Media in Predicting the Impact of Islamic Religious Knowledge on Life Satisfaction and Well Being. *International Journal of Arts and Social Science*, 7(3), 119–133.
- Bala, R., Tumanggor, R., & Dewi, H. I. (2025). Implementation of Technology-Based Learning at Madrasah Ibtidaiyah Negeri 1 Alor. *Formosa Journal of Sustainable Research*, 4(6), 1115–1140. <https://doi.org/10.55927/fjsr.v4i6.379>
- Brutu, D., Annur, S., & Ibrahim, I. (2024). Transformasi Administrasi Pendidikan Menuju Pendidikan Berkualitas. *Jambura Journal of Educational Management*, 5(1), 295–305. <https://doi.org/10.37411/jjem.v5i1.3049>
- Cahyanto, I., Natsir, L. F., & Hidayat, T. (2025). Designing a Stakeholder Engagement Model in Educational Policy Decision-Making: a Critical Literature Review. *Edum Journal*, 8(1), 153–168. <https://doi.org/10.31943/edumjournal.v8i1.327>
- Cahyati, I. K., & Adelia, M. (2024). Kepemimpinan dan Budaya Organisasi: Kunci Optimalisasi Kinerja di Tempat Kerja. *Indonesian Journal of Public Administration Review*, 1(3), 14. <https://doi.org/10.47134/par.v1i3.2550>
- Damayanti, S., Setiawan, W. D., Pangestu, S. E., Pribadi, S. A., & Argadinata, H. (2024). Transformasi kepemimpinan digital sekolah dasar dalam menuju efisiensi dan transparansi di era digital. *Proceedings Series of Educational Studies*, (6), 1–9.
- Darmayasa, D., Lakadjo, M. A., Juasa, A., Rianty, E., Efitra, E., Wirautami, N. L. P., & Calam, A. (2025). *Pendidikan Di Era Digital: Tantangan Dan Peluang*. Henry Bennett Nelson.
- Dimas, M., & Fahlevvi, M. R. (2024). Pengentasan Digital Divide dalam Penerapan E-Government di Kabupaten Sumbawa. *Jurnal Teknologi Dan Komunikasi Pemerintahan*, 6(2), 194–215. <https://doi.org/10.33701/jtkp.v6i2.4504>
- Farid, M., Nugraha, M. S., Nurachadijat, K., & Rosadi, A. (2025). Pendekatan Manajemen dalam Perencanaan Tenaga Pendidik pada Lembaga Pendidikan Islam. *Kharismatik : Jurnal Ilmu Pendidikan*, 3(1), 28–42. <https://doi.org/10.70757/kharismatik.v3i1.50>
- Fauzi, M. I., & Wasliman, E. D. (2025). Principal management in improving teacher performance and education quality in private vocational schools. *At Turots: Jurnal Pendidikan Islam*, 7(1), 335–344. <https://doi.org/10.51468/jpi.v7i1.846>

- Fentyrina, A., & Mardi, M. (2025). Transformasi digital dalam manajemen pendidikan: Tantangan dan peluang di era pendidikan 5.0. *Journal Scientific of Mandalika (JSM)* e-ISSN 2745-5955| p-ISSN 2809-0543, 6(3), 494–501. <https://doi.org/10.36312/vol6iss3pp494-501>
- Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of management studies*, 58(5), 1159-1197.
- Hasna, M. (2024). Digitalisasi Pengelolaan Sekolah Dasar Negeri Kota Banjarmasin: Tinjauan Analisis SWOT Dalam Strategi Pengembangan Sekolah Digital. *Jurnal Pendidikan Modern*, 10(1), 32–42. <https://doi.org/10.37471/jpm.v10i1.1053>
- Hikmawati, H., Syukri, R. A., Raldiastari, S., & Mutmainnah, M. (2025). Implementasi Kurikulum Merdeka dan Manajemen Berbasis Sekolah dalam meningkatkan Mutu Pendidikan di Sekolah Dasar. *Ainara Journal (Jurnal Penelitian Dan PKM Bidang Ilmu Pendidikan)*, 6(2), 212–219. <https://doi.org/10.54371/ainj.v6i2.836>
- Jannah, R., Surawan, S., & Yusuf, M. (2022). Teacher's Innovation in Class Management to Increase Student Learning Motivation in Pandemic Era. *INSIS*, 3(1).
- Listari, T., Berlian, Z., & Zainuri, A. (2025). Manajemen Berbasis Sekolah (MBS) pada SMK Setia Darma Palembang. *Edu Society: Jurnal Pendidikan, Ilmu Sosial Dan Pengabdian Kepada Masyarakat*, 5(2), 684–690. <https://doi.org/10.56832/edu.v5i2.1327>
- Malisi, M. A. S., Sardimi, S., Surawan, S., & Aldianoor, A. (2023). Contribution of PAI Teacher Personality Competence to Student Motivation in School Exams. *Ta'dib*, 26(2), 291–302. <https://doi.org/10.31958/jt.v26i2.8437>
- Mansyur, A., Sinaga, F. A., Siregar, T. M., Frisnoiry, S., & Elfitra, E. (2025). Optimalisasi Kolaborasi dalam Integrasi Teknologi Sebagai Inovasi Pembelajaran. *Jurnal Inovasi Pembelajaran Di Sekolah*, 6(1), 033–040. <https://doi.org/10.51874/jjips.v6i1.306>
- Mariffa, S., Desviandy, F. A., & Windasari, W. (2024). Efisiensi Pengelolaan Pendidik dan Tenaga Kependidikan dalam Meningkatkan Standar Pembelajaran di SMP Negeri 59 Surabaya. *Pubmedia Jurnal Penelitian Tindakan Kelas Indonesia*, 1(3), 10. <https://doi.org/10.47134/ptk.v1i3.454>
- Martínez-Peláez, R., Escobar, M. A., Félix, V. G., Ostos, R., Parra-Michel, J., García, V., ... & Mena, L. J. (2024). Sustainable digital transformation for SMEs: A comprehensive framework for informed decision-making. *Sustainability*, 16(11), 4447. <https://doi.org/10.3390/su16114447>
- Mbato, C. L., & Sungging, F. (2022). *Pendidikan Indonesia Masa Depan: Tantangan, Strategi, Dan Peran Universitas Sanata Dharma*. Sanata Dharma University Press.
- Muktamar, A., Iswahyudi, M. S., Salong, A., Wote, A. Y. V., Rahmatiyah, R., Riyadi, S., ... Leuwol, F. S. (2023). *Manajemen Pendidikan: Konsep, Tantangan, dan Strategi di Era Digital*. PT. Sonpedia Publishing Indonesia.
- Nasruddin, N., Miftachurohmah, N., Mabruri, M. S., Astuti, P., Lahagu, S. E., Rahayu, N., ... Jumri, R. (2025). *Strategi Kepemimpinan Pendidikan di Era 4.0: Membangun Sekolah Masa Depan*. PT. Nawala Gama Education.
- Pratistiningsih, D., Muhlisin, A., Harsono, H., & Sutama, S. (2024). Inovasi pendidikan digital dalam meningkatkan outcome pembelajaran pada era industri 4.0. *Kabillah: Journal of Social Community*, 9(2), 144–155.

- Prihastia, A., Hani, U., Safi'i, M., Mausul, S., & Daimah, D. (2022). Digitalization of Islamic Education Planning in Madrasah. *Managere: Indonesian Journal of Educational Management*, 4(1), 83–96. <https://doi.org/10.52627/managere.v4i1.97>
- Putri, Y. D., Hapriliani, H., & Faelasup, F. (2025). Transformasi Pendidikan Indonesia di Era Reformasi: Analisis Perubahan, Tantangan, dan Harapan. *JIMU: Jurnal Ilmiah Multi Disiplin*, 03(03), 3031–9498.
- Quaicoe, J. S., Ogunyemi, A. A., & Bauters, M. L. (2023). School-based digital innovation challenges and way forward conversations about digital transformation in education. *Education Sciences*, 13(4), 344. <https://doi.org/10.3390/educsci13040344>
- Rahmat, A., & Husain, R. (2020). *Manajemen Berbasis Sekolah Untuk Perbaikan Mutu Pendidikan Sekolah Dasar*. Zahir Publishing.
- Repindo, R., Jamrizal, J., & Hakim, L. (2025). Tinjauan Gaya Kepemimpinan Kepala Madrasah di Era Digitalisasi. *Innovative: Journal Of Social Science Research*, 5(3), 4377–4386. <https://doi.org/10.31004/innovative.v5i3.19210>
- Riswanto, R., & Mulyanti, D. (2024). Peran Guru dan Kepala Sekolah sebagai Aktor Pendidikan di Tengah Perubahan Lingkungan Pendidikan yang Berubah Cepat. *Journal of Comprehensive Science (JCS)*, 4(02), 7823–7830. <https://doi.org/10.59188/jcs.v3i6.757>
- Sa'diyah, M. (2023). The transformation of education in the era of disruption: challenges and opportunities towards the future. *Journal of Islamic Education and Pesantren*, 3(2), 1–14. <https://doi.org/10.33752/jiep.v3i2.5725>
- Setiawan, M. R., Sudrajat, A., & Tedjawiani, I. (2022). Manajemen Berbasis Sekolah (MBS) dalam Meningkatkan Mutu Sekolah (Studi Deskriptif tentang Peran Kepala Sekolah dalam MBS Pada SMPN 3 dan SMPN 4 Malangbong). *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 5(5), 1335–1346. <https://doi.org/10.54371/jiip.v5i5.553>
- Shobri, M. (2025). Peran Kepala Madrasah sebagai Leader Visioner: Strategi Penguatan Mutu dan Integritas Lembaga Pendidikan Islam. *AKSI: Jurnal Manajemen Pendidikan Islam*, 3(3), 191–210. <https://doi.org/10.37348/aksi.v3i3.720>
- Susanto, T. T. D., Syafruddin, L., & Abdullah, S. F. (2025). Peningkatan Kualitas Pengambilan Keputusan Melalui Manajemen Berbasis Data Di Sekolah. *JURNAL MADINASIKA Manajemen Pendidikan Dan Keguruan*, 6(2), 235–250. <https://doi.org/10.31949/madinasika.v6i2.13723>
- Suyarti, S., & Patimah, S. (2023). Inovasi Manajemen Kelas Dalam Meningkatkan Partisipasi Masyarakat Di Tk Aisyiyah Lampung. *At-Tajdid: Jurnal Pendidikan Dan Pemikiran Islam*, 7(2), 444–455. <https://doi.org/10.24127/att.v7i2.2998>
- Umami, S., & Wahyudi, K. (2025). Strategi Kepemimpinan Transformasional dalam Menghadapi Tantangan Kurikulum Merdeka Belajar di Sekolah. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 8(3), 3550–3559. <https://doi.org/10.54371/jiip.v8i3.7542>
- Wahyudi, D., & Fauziati, E. (2025). Peran ICT dalam Pembelajaran pada Program Digital Class: Studi Fungsi, Hambatan, dan Faktor Pendukung Implementasi. *Didaktika: Jurnal Kependidikan*, 14(1 Februari), 309–328. <https://doi.org/10.58230/27454312.1792>
- Wahyudi, N. G., & Jatun, J. (2024). Integrasi Teknologi dalam Pendidikan: Tantangan dan Peluang Pembelajaran Digital di Sekolah Dasar. *Indonesian Research Journal on Education*, 4(4), 444–451. <https://doi.org/10.31004/irje.v4i4.1138>

- Wibowo, A. (2024). Manajemen Transformasi Digital Industri 4.0. In *Jurnal Pengabdian Masyarakat IPTEKS* (Vol. 10). Penerbit Yayasan Prima Agus Teknik.
<https://doi.org/10.32528/jpmi.v10i2.2236>
- Zohriah, A., & Firdaos, R. (2024). Implementasi Manajemen Berbasis Sekolah pada Satuan Pendidikan. *Tarbiatuna: Journal of Islamic Education Studies*, 4(1), 11–18.
<https://doi.org/10.47467/tarbiatuna.v4i1.4382>